

IV.A.11.

"Issuance of Guidance Interpreting 'Single Operational upset'", dated September 27, 1989.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 27 1989

OFFICE OF
ENFORCEMENT AND
COMPLIANCE MONITORING

MEMORANDUM

SUBJECT: Issuance of Guidance Interpreting "Single Operational Upset"

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TO: Addressees

Attached is the final guidance document presenting the Agency's interpretation of the "Single Operational Upset" (SOU) provisions that were added to the Clean Water Act by Congress via the Water Quality Act of 1987, now codified as CWA §§ 309(c)(5), (d), and (g)(3), 33 U.S.C. §§ 1319(c)(5), (d), and (g)(3). It is the purpose of this Guidance to provide EPA enforcement personnel with an Agency interpretation of the SOU provisions for use in determining under what circumstances SOU will apply to reduce the statutory liability of a CWA violator.

This Guidance document was distributed in draft for comment on April 21, 1989. Comments were received from nine EPA Regional offices, the National Enforcement Investigations Center, the Office of Criminal Enforcement Counsel, the Office of General Counsel, and the Department of Justice, Land and Natural Resources Division. The comments were generally very favorable and the Guidance has been revised pursuant to those comments. In particular, there was nearly unanimous agreement with the approach to the interpretation of SOU set forth in the Guidance. Agreement was unanimous that SOU may not be limited to violations of technology-based effluent limitations.

The Guidance set out in the attached document represents the Agency's authoritative interpretation of the Single Operational Upset provisions contained in the Water Quality Act of 1987. It is intended primarily for the use of government personnel. It is not intended, and cannot be relied upon, to create any rights, substantive or procedural, enforceable by any party in litigation with the United States. The Agency reserves the right to change this guidance at any time without public notice.

We encourage all Regions to discuss any instance in which SOU arises in an enforcement context with us. Please call either Daniel Palmer, OECM-Water, (LE-134W), FTS 382-2849, Richard Kinch, OWEP, (EN-338), FTS 475-8319, or, for potential criminal cases, call Bette Ojala, OCEC, (LE-134X), FTS 475-9663.

Attachment

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GUIDANCE INTERPRETING
CLEAN WATER ACT SECTIONS 309(c)(5), 309(d), and 309(g)(3):
SINGLE OPERATIONAL UPSET

I. Introduction and Summary of Contents

Congress, in amending the Clean Water Act in 1987 (via the Water Quality Act of 1987), qualified the administrative, civil, and criminal enforcement sections of the statute with the following language:

For purposes of this subsection, a single operational upset which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation.

Clean Water Act §§ 309(c)(5), 309(d), and 309(g)(3), 33 U.S.C. §§ 1319(c)(5), 1319(d), and 1319(g)(3). The effect of this language is to limit, under certain circumstances, the penalty liability of violators of the Clean Water Act. "Simultaneous" violations of multiple pollutant parameters, established by an NPDES permit, categorical standards, or local limits, each of which is attributable to the same "single operational upset," are to be counted as only one violation.

The term "upset" has been defined by regulation, 40 C.F.R. § 122.41(n), as an affirmative defense which, if affirmatively raised and proved, completely relieves a regulatee of liability. However, the term "single operational upset" ("SOU") has absolutely no history predating its use in the Water Quality Act. It is therefore the purpose of this guidance to interpret single operational upset (SOU) for purposes of application by the Environmental Protection Agency in pursuing penalties under Sections 309(c), (d) and (g) of the CWA.

Following are the chief conclusions reached in this guidance:

1. A "single operational upset" is defined in this guidance as:

An exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. Single operational upset does not include Clean Water Act violations involving discharge without an NPDES or locally issued permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities.

2. At the sentencing stage in a criminal prosecution, or at the remedy stage in a civil enforcement proceeding (judicial or administrative), violations of multiple pollutant parameters, resulting from a single operational upset, will be taken together in the aggregate in determining the maximum criminal fine, the maximum term of imprisonment, or the maximum civil penalty, which may be imposed or assessed, for each day during which the defendant has been found guilty of a criminal offense, or during which the defendant (or respondent) has been found liable for civil violations.
3. This definition of Single Operational Upset applies equally in the civil judicial, administrative, and criminal contexts. Nonetheless, the extent of the availability of SOU to limit penalty liability is less extensive in the criminal context due to the requirement that the exceedance must have been unintentional and unknowing. This requirement eliminates the availability of SOU for "knowing" criminal violations, CWA § 309(c)(2), (3), and (4).
4. Unintentional and unknowing operator error that results in the occurrence of an SOU event may justify a limitation on liability. SOU differs in this regard from the upset defense, which does not recognize operator error as a basis for raising the defense. The availability of SOU for exceedances caused by unintentional operator error and for negligent acts or omissions is necessary in order to give SOU any practical application in the criminal enforcement context.
5. "Simultaneous" is defined in this guidance as all pollutant parameter exceedances attributable to a specific single operational upset that occur during a single day. Each day that such exceedances continue is considered to be an additional day of violation subject to additional penalties.
6. "Pollutant parameter" is defined as all effluent limitations and non-numeric limitations regulating the content or amount of a regulatee's direct or indirect discharge. These parameters may be contained in an NPDES permit, a locally issued permit or other control mechanism established in accordance with the pretreatment regulations, 40 C.F.R. Part 403, categorical pretreatment standards, etc. The basis upon which the pollutant parameter is established is irrelevant, i.e., one may claim SOU to limit liability for exceedances of water quality-based, technology-based, or otherwise derived pollutant parameters.
7. SOU serves to limit a CWA regulatee's potential liability for exceedances of multiple pollutant parameters

in situations where a regulatee who usually complies with applicable effluent limits experiences an extraordinary, temporary, and unintended "upset" event, i.e., some kind of unusual interference with the industrial or municipal treatment system, that results in noncompliance with more than one effluent limitation. Under these circumstances, EPA enforcement personnel, in calculating the maximum allowable statutory penalty, will treat violations of multiple pollutant parameters on a single day, attributable to a specific SOU event, as one violation. It must be stressed that an event will not constitute an upset for purposes of the SOU limitation on liability unless the regulatee can demonstrate a norm of compliance with his permit effluent limitations.

8. In order to claim SOU, the "upset" event must be exceptional, i.e. a non-routine, unusual malfunction of a facility's usual proper and adequate operation. The event must not be business as usual.

9. SOU is not available to limit liability where pollutant parameter exceedances result from the installation of inadequate treatment facilities or faulty design of the treatment facilities. SOU is also not available to limit liability of those who violate the CWA by discharging without a permit, where a permit is legally required.

10. SOU is not available to limit the liability of any regulated entity who, personally or by its agents or any persons in any way associated with the regulated entity, intentionally or knowingly causes violations of pollutant effluent parameters.

11. The regulatee subject to a CWA enforcement action bears the burden of coming forward with the claim that an SOU event occurred causing the exceedances in question. The regulatee also bears the burden of proving, by a preponderance of the evidence, the occurrence of the SOU event and its relationship to the effluent limitation exceedances in question.

12. A regulatee may not claim SOU if he/she fails to take timely corrective and/or mitigative action where possible or practicable to reduce the effect of the upset event.

II. Deriving a Definition of "Single Operational Upset"

The term "single operational upset" has no history prior to its use in the Water Quality Act of 1987. It has no history as a statutory or regulatory term of art, nor does the term have a single, precise, or authoritative common meaning. Therefore, in

interpreting the meaning of SOU, EPA looks to three sources: the legislative history of the Water Quality Act, the regulatory definition of "upset," and the plain meaning of the words in the SOU provisions. We will look first to the legislative history.

A. The Legislative History of the Water Quality Act of 1987

Although the Clean Water Act was not amended until February 4, 1987, in the 100th Congress, the evolution of the Water Quality Act to its final form took place primarily in the 99th Congress. Representative Howard introduced H.R. 8, the Water Quality Renewal Act of 1985, on January 3, 1985. The Senate bill, S. 1128, was introduced May 14, 1985. Neither the House nor the Senate bill as originally presented contained a provision similar to the single operational upset provision. However, the amended H.R. 8 reported out of the House Committee on Public Works and Transportation contained the following language in its administrative penalties provision:

The Administrator or the Secretary may not assess a civil penalty under this subsection against any person with respect to a violation if the Administrator or the Secretary, as the case may be, has assessed a civil penalty under this subsection against such person with respect to the same violation or a violation having substantially the same cause or arising out of substantially the same conditions.

The Committee report on H.R. 8 contained the following discussion:

If a series of closely related violations occurs due to a single operational upset which leads to simultaneous violations of several pollutant parameters over a period of several days, EPA may bring one enforcement action, subject to the \$125,000 maximum. EPA may not seek to evade the \$125,000 maximum by, for example, bringing separate enforcement actions for each of these simultaneous violations. However, EPA is free to bring separate actions for individual violations (or groups of violations) which are not of this nature. H.R. Rep. No. 189 at 33, 99th Cong., 1st Sess. (July 2, 1985)

However, the House Committee bill and report are not, strictly speaking, part of the legislative history of the Water Quality Act, because the 100th Congress, which actually passed

the legislation, did not incorporate them by reference, as it did various other bills, reports, and debates.

On September 4, 1985, Congress passed a motion to agree to a conference. The conference report was filed on October 15, 1986. The bill reported out of committee contained the single operational upset provisions, affecting civil, administrative and criminal penalty assessment, as they appear in the Water Quality Act as finally passed. The Conference report provides the following discussion:

The [House] amendment provides that a civil penalty may not be assessed with respect to a violation if a penalty has been assessed with respect to the same violation or a violation having substantially the same cause. (bracketed word inserted) H.R. Rep. No. 1004, 99th Cong., 2d Sess., 132 Cong. Rec. H10569 (Oct. 15, 1986).... For all three classes of penalties covered by the conference substitute--criminal, judicial civil, and administrative civil - the conference substitute provides that a single operational upset which leads to simultaneous violations of more than one pollutant parameter in an NPDES permit shall be treated as a single violation. H.R. Rep. No. 1004, 99th Cong., 2d Sess., 132 Cong. Rec. H10570 (Oct. 15, 1986).

Representative Snyder, a ranking minority member of the House Committee on Public Works and Transportation, referring to the SOU provisions, stated, "Under these penalty provision [sic], multiple violations which stem from a single cause should be considered as one 'violation' for penalty assessment purposes." H.R. Rep. No. 1004, 99th Cong., 2d Sess., 132 Cong. Rec. H10932 (October 15, 1986). Rep. Snyder did not identify the nature of the "single cause" in this statement but from the plain language of the statute it is clear that it must be an "operational upset."²

¹ See "Guidance on 'Claim-Splitting' in Enforcement Actions Under the Clean Water Act," August 28, 1987, for a discussion of the application of the \$125,000 statutory cap on administrative (class II) penalties in the context of a series of violations.

² Rep. Snyder could not have meant that any single cause that results in multiple violations is to be considered as one violation for penalty assessment purposes. If any cause would suffice to limit penalty liability, then failure to install necessary wastewater treatment equipment would constitute a single cause for which penalty liability could be limited. Failure to install treatment equipment is not an "operational

Subsequently, S. 1128 was signed in both the House and the Senate on October 23, 1986. The bill was vetoed by President Reagan on November 6, 1986. In the 100th Congress, the identical bill, redesignated H.R. 1, was again passed by both houses of Congress and was again vetoed by the President, on January 30, 1987. However, five days later, on February 4, 1987, Congress voted to over-ride the President's veto and the Water Quality Act of 1987 became law.

Since H.R. 1 was identical to the conference bill placed before the President in the 99th Congress, the legislative history pertaining to that legislation was incorporated by reference. Sen. Chafee stated:

Therefore, the statement of managers on that bill [S. 1128], which is found in Report No. 99-1004, contains the primary legislative history on this bill. That statement of managers, as explained by conferees on the floor of the House and Senate last October, should be viewed by courts as the most authoritative statement of congressional intent. 133 Cong. Rec. S746 (daily ed. Jan. 14, 1987) (statement of Sen. Chafee).

Specifically, the legislative history includes the conference report, and the Senate debate on the conference report, as well as the report of the Environment Committee on the committee bill S.1128 and the Senate debate on the committee bill. 133 Cong. Rec. S734-735 (daily ed. Jan. 14, 1987) (statement of Sen. Mitchell).

The legislative history is thus largely a restatement of the single operational upset provision. No discussion is found in Congressional debate. At most, the discussion in the conference report shows that the Conference Committee restated the previous House concept of penalty limitation as a single operational upset concept. Congress deleted the term "substantially the same cause" at the same time. The change indicates that it was Congress's intent that only a cause related to a single operational upset could operate to limit liability. The Conference Committee also incorporated the concept of simultaneity, which operates to further limit the violations which may be treated as a single violation.

The new wording added by the Conference Committee indicates the importance of the term "single operational upset" and of the

upset," nor is it at all likely that Congress would have desired to limit a polluter's liability in this situation. The statute must be construed as written, limiting liability where the cause of multiple violations was single "operational upset."

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simultaneity concept. Nonetheless, Congress provided no guidance on what it meant by these terms. It is therefore, primarily, the regulatory definition of upset and the plain statutory language that form the basis for EPA's interpretation of the SOU provisions.

B. Regulatory Definition of Upset and the Upset Defense

The term "upset" has been defined by regulations promulgated by the Environmental Protection Agency. 40 C.F.R. § 122.41(n). These regulations were developed in response to the Federal Circuit Court decision in Marathon Oil v. Environmental Protection Agency, 564 F.2d 1253 (9th Cir. 1977). In Marathon Oil, the court held that EPA was required to insert a special "upset" provision into the permit of each of the defendants in the case. The court concluded that a facility using proper technology operated in an exemplary fashion would not necessarily be able to comply with its technology-based effluent limitations one hundred percent of the time. Further, the Act only required dischargers to meet effluent limitations by application of "best available technology." Therefore, lack of a mechanism providing an excuse from liability for those rare circumstances when a violation occurs that the discharger could not avoid set a standard higher than that set by the Clean Water Act.

Based on the decision in Marathon Oil, EPA elected to require by regulation that all federally-issued NPDES permits³ afford dischargers who have violated technology-based effluent limitations in their permit a limited "upset defense." The regulation defining upset states:

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations [or categorical Pretreatment Standards] because of factors beyond the reasonable control of the permittee [or Industrial User]. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities,

³ States are not required to include an upset provision in state-issued pollution discharge elimination system permits under § 510 of the Act, 33 U.S.C. §1370, which allows states to adopt or enforce more stringent standards. Sierra Club v. Union Oil Co., 813 F.2d 1480 (9th Cir. 1987). See also U.S. v. BP Oil, Inc., No. 86-0792 (E.D.Pa. July 29, 1988) (order granting government's motion for partial summary judgment) ("Absent incorporation by either [defendant's federal or state issued] permit of the upset defense . . . , the defense is unavailable to defendant.")

inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

40 C.F.R. §§ 122.41(n) and 403.16(a).

The intent of the upset defense, as defined in the regulations, is to provide those who violate technology-based effluent limitations (contained in a federally-issued NPDES permit or categorical pretreatment standards) with an affirmative defense to allegations of permit noncompliance, if the exceedance results from an exceptional, unintentional incident which is beyond the control of the party who discharges in violation of his permit. A party who successfully claims upset is not legally liable for the exceedances at issue, and has not violated the CWA, his NPDES permit, or categorical pretreatment standards.

An analysis of the SOU provisions in the Water Quality Act and their application to the various enforcement sections to which they were appended, makes it doubtful that Congress intended single operational upset to have exactly the same definition as regulatory upset. If SOU and regulatory upset are given the same definition, two major problems arise. First, the regulatory upset defense would render SOU almost meaningless, providing a complete defense in the same situations where SOU would serve only to limit a violator's liability. Second, the regulatory definition of upset is inapplicable in the criminal context. Criminal liability is predicated on proving certain levels of culpability, either negligent or knowing. The regulatory upset defense, by definition, is unavailable in those situations where the event causing the violations is attributable to negligence or greater culpability on the part of the regulatee. Therefore, if one applies the regulatory definition of upset to SOU in the 309(c) criminal context, no criminal defendant will ever be able to avail himself of the SOU limitation on liability.

Because the regulatory definition of upset cannot effectively apply to SOU, it is necessary to interpret this statutory provision based primarily upon the plain meaning of the words in the provision and a determination of how the provision can effectively be interpreted to limit the extent of statutory liability for certain violations of the CWA.

C. Plain Meaning of the Words in the Single Operational Upset Provisions

1. The phrase "single operational upset," simply construed, refers to a singular event, arising from some kind of operational failure, that results in an "upset." An upset, in industry terms, is an unusual event that temporarily disrupts the usually satisfactory operation of a system. In the context of SOU, an event, to constitute an upset, must disrupt the system in

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such a way that it results in violation of multiple pollutant parameters.

2. "Simultaneous violations," resulting from an SOU, are violations that occur at precisely (or nearly) the same time, and result from the same cause, i.e., the same upset event.

3. "Pollutant parameters" are the effluent limitations established in an NPDES or state-issued pollutant discharge permit or categorical standards or other standards (i.e. local limits) applying to indirect dischargers (industrial users).

III. Definitions

A. "Single Operational Upset"

Following is the definition of Single Operational Upset which EPA enforcement personnel should use in the Civil Judicial and Administrative, and Criminal contexts (CWA §§ 309(d), 309(g)(3), and 309(c)(5)):

An exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. Single operational upset does not include Clean Water Act violations involving discharge without an NPDES or locally issued permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities.

B. "Exceptional"

In order to qualify as an SOU event, an incident must be "exceptional," i.e., the incident must not be business as usual, but must be a non-routine malfunctioning of an otherwise generally compliant facility. The regulatee must normally be in compliance with applicable effluent limitations. See Section IV.D. below.

C. "Simultaneous": Counting Violations Where a Single Operational Upset is Involved

The statutory language refers to "simultaneous violations" of more than one pollutant parameter. For purposes of the SOU provisions, violations of more than one pollutant parameter shall be considered to be simultaneous if they occur during a single day, and result from the same operational upset event. In other words, all violations attributable to a specific SOU that occur during a single day will be counted as only one violation for purposes of determining the maximum penalty allowed under the

CWA. Therefore, if an SOU results in the exceedance of more than one permit pollutant parameter, and these exceedances continue for only one day, only one violation will be counted. If a violation attributable to one SOU continues for two days, two violations will be counted, and so on.

Congress, in establishing statutory penalty limits, set those limits on a per day, per violation basis. See CWA §§ 309(c) (1)(B) and (2)(B), 309(d), and 309(g)(2). Under the CWA, each day that an effluent limitation exceedance or other CWA violation continues is a new day of violation, for which the regulatee may be assessed an additional day's statutory maximum penalty. The SOU provisions do not breach this "per day, per violation" rule. SOU does not seek to limit the counting of violations so that multiple days of violation caused by an SOU event is counted as only one violation, but rather, that the violation of multiple parameters is counted as only one violation for the purpose of determining the maximum allowable penalty. Therefore, in defining "simultaneous," it is correct and in compliance with Congress's desire that each day of violation caused by an SOU event be counted as a separate violation.

D. "Unintentional"

The requirement that the noncompliance with effluent parameters have been "unknowing and unintentional" restricts the availability of the SOU limitation on liability to upset events other than those caused by the regulatee or his agents or other associated with the regulatee who knowingly intend to commit the act that caused or led to violations of the CWA. For the purpose of defining SOU, there is no distinction drawn between a violation "intentionally" caused and a violation "knowingly" caused. See IV.C. below.

E. "Temporary"

The requirement that noncompliance with effluent limitations be "temporary" concerns the requirement that the regulatee takes corrective and/or mitigative action on an expedited basis following the SOU event. See IV.B. below.

F. "Pollutant Parameter"

For purposes of the SOU provisions, the term "pollutant parameter" shall include all pollutant⁴ numerical effluent limitations and non-numerical limitations regulating the content or amount of a regulatee's discharge, such as flow limitations, visible solids, etc. The term does not include permit or

⁴ "Pollutant" is defined at § 502(6) of the Act, 33 U.S.C 1362(6).

regulatory conditions not directly relating to pollutant regulation, such as requirements to report, monitor, perform studies, complete tasks on schedule, pretreatment program implementation, etc.

The statute itself restricts the application of SOU to violations of pollutant parameters. Therefore, liability for violations involving discharge without a permit may not be limited by a claim of SOU.

SOU, unlike the regulatory upset defense, is not limited to violations of technology-based effluent parameters and applies equally to water quality-based effluent parameters. Congress, in enacting the three SOU provisions, did not make any distinction between the bases upon which effluent limitations are formulated, and there appears to be no basis upon which to make this distinction in this guidance.

IV. Application of Single Operational Upset to Limit Liability

A. To Claim SOU, the Incident Must be Exceptional

To qualify for the SOU limitation, the "upset" incident must be exceptional: a non-routine, unusual malfunction, breakdown or disruption of a facility's usual proper and adequate operations. It follows from Congress's use of the words "single" and "upset" that a single operational upset cannot be business as usual. (The concept of single operational upset is similar to that of regulatory upset in this regard.)

B. To Claim SOU, a Discharger Must Normally Achieve its Effluent Limitations

Several exceedances stemming from the same cause may constitute evidence that the underlying cause or event was not an "upset," i.e. an unusual or exceptional malfunction of an ordinarily well functioning operation. Such a series of exceedances indicates that proper equipment may not have been installed, that the facility might be, as a matter of course, improperly operated, or that the design of the facility is deficient. It would also indicate that the discharger/violator had notice that there was a problem with its treatment facility and failed to take action to mitigate and avoid further breakdowns leading to exceedances. Therefore, violations of the CWA by dischargers who are frequently, repeatedly, ordinarily or predictably not in compliance are not due to an "upset" within the meaning of "single operational upset," even if associated with an equipment breakdown or operational failure.

C. To Claim SOU, the Exceedance of Effluent Parameters Must Have Been Unintentional and Unknowing

Only noncompliance with pollutant effluent parameters that were unintended and unknowing are subject to the SOU limitation on liability. This conclusion has a limiting effect on the availability of SOU to limit liability, particularly in the criminal context.

CWA § 309(c)(1) makes certain "negligent" violations criminal misdemeanor offenses. CWA § 309(c)(2), (3), and (4) make certain "knowing" violations criminal felony offenses.

The position of the Agency is that the state of mind a defendant must have had in order to be convicted of a felony is "general intent," not "specific intent." This means that the United States need not prove that a defendant specifically intended by his acts or omissions to violate the law, but that he must have consciously or knowingly committed (or omitted) an act that caused or led to the violation. (Of course, intentional violations committed by one who has "specific intent" are also punishable under the Clean Water Act penalty provisions.)

Congress could not have intended that knowing violations could be mitigated at sentencing through use of the single operational upset provision. In addition, it is contrary to the ordinary meaning of the word "upset" to include events which are intentionally or knowingly caused. Finally, in cases in which the felony provisions apply, it is the "knowing" acts or omissions which "cause" or "lead to" the violations, not any equipment breakdown which may have been associated with such illegal acts. Thus, the SOU provision does not apply to mitigate sentencing of felony violations of the Clean Water Act, although it may apply to sentencing for misdemeanor violations (negligence).

D. An Upset Event Caused by Unintentional Operational Error or Careless or Improper Operation is Subject to the SOU Limitation on Liability

The upset defense is defined by regulation so that it may not be raised if either operational error (intentional or unintentional) or careless or improper operation was the cause of the effluent limitation exceedances at issue. SOU, on the other hand, is defined so that it may be claimed where operational error or careless or improper operation was unknowingly or unintentionally committed.

This deviation from the regulatory upset definition is necessary in order to give SOU practical application in the criminal enforcement context. Criminal liability under the Clean Water Act is premised on either a "negligent" or "knowing" level

of culpability. CWA § 309(c)(1) and (2). If any exceedance that is either intentional or knowing or caused by "error," or "careless" or "improper" operation were to be excluded from the definition of SOU, no situation in which one could be both criminally culpable (minimally negligent) and able to raise the SOU limitation on liability (less than negligent) would exist. In order to give SOU meaning in the CWA criminal context as set forth in the Act, its application has been expanded to cover effluent parameter exceedances that are caused by negligence attributable to the regulatee.

E. To Claim SOU, the Facility Must be Properly Designed and Provide Adequate Treatment

Violations which occur because adequate treatment technology has not been installed is not an upset as defined in the regulations, particularly because poor design and inadequate treatment do not constitute the type of exceptional circumstances that qualify an event as an SOU or upset. EPA enforcement personnel should take the same approach to interpreting the SOU provisions. Any other result improperly limits the penalty liability of those who have not installed proper treatment equipment and indirectly penalizes those who have done so. Therefore, to successfully claim SOU, a violator must demonstrate that a facility is properly designed and that it provides adequate treatment.

F. SOU May Not Be Claimed Where the Clean Water Act Violation is Discharge Without a Permit

Because it is a prerequisite to claiming the SOU limitation on liability that violations of multiple pollutant parameters have been exceeded, SOU can not be available to a respondent or defendant in an enforcement action brought for discharge without a permit. Absent a permit (or some other similar control mechanism), there are no pollutant parameters established for the respondent or defendant to have exceeded.

G. Requirement That the Violator Take Timely Corrective and/or Mitigative Measures Where Possible or Practicable in Order to Claim SOU

The regulatory upset defense is not available where a noncompliance situation exists or is allowed to continue to exist, when corrective or mitigative measures were possible or practicable but were not taken. 40 C.F.R. § 122.41(n)(3)(iv). EPA enforcement personnel should take the same approach to interpreting single operational upset. The SOU provisions shall not be construed to provide relief to regulatees who fail to take timely mitigative or corrective measures to minimize the effects caused by the SOU nor shall continuing days of violations, originally caused by an SOU, be equitably attributable to the SOU

if the violator has not taken whatever corrective or mitigative actions are necessary to prevent the continuing violations. See 40 C.F.R § 122.41(d) (duty to mitigate). This requirement is necessary to compel regulatees who experience an upset event to immediately correct the problem and not allow the violations to continue for an entire day (a day during which no additional penalties will accrue, if additional violations are attributable to the upset event). Congress certainly did not intend to establish a limitation on liability that grants a regulatee the right to violate at will, even for a single day. Implying such an intent on Congress is contrary to the logic and purpose of the Clean Water Act and would make a mockery of Congress's carefully devised regulatory scheme.

H. Procedural Requirements

1. The Nature of Single Operational Upset

The SOU provisions create a) a sentencing factor, in the criminal context, to be considered by the sentencing judge; and b) an equitable factor pertaining to appropriate relief, in the civil (judicial or administrative) context, to be considered by the judge or presiding officer. As such, the issue of whether an SOU provision applies is not a matter which should be presented to or considered by a jury in a criminal or civil judicial case, and it need not be addressed in a charging document or civil complaint.

2. Establishing the Elements of SOU

If a respondent or defendant in an administrative, civil or criminal enforcement action believes that certain simultaneous violations of more than one pollutant parameter were caused by a single operational upset, respondent or defendant is responsible for asserting this claim. Respondents and defendants are in the best position to produce information relating to whether given violations resulted from an SOU event. A claim of occurrence of an SOU is relevant to the size of the penalty imposed, not the liability of an alleged violator, therefore SOU need not be raised until the assessment of the penalty or sentencing phase of the proceeding.

The respondent or defendant, to successfully assert the SOU limitation on liability, must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence, that:

- a) A single operational upset occurred;
- b) The permittee or violator has taken, in a timely fashion, all corrective and/or mitigative

measures where possible or practicable. (See Section IV(G) above.)

Where a respondent or defendant has provided EPA with prior notice of an SOU condition (e.g., in accordance with the 24 hour notice requirements of 40 C.F.R. 122.41(1)(6)) presumably administrative and judicial decision-makers will give appropriate weight to such prior notice in determining whether the occurrence of an SOU has been proved.

3. Burden of Proof on Respondent/Defendant

Where a respondent or defendant desires to claim the protection of a statutory exception or exemption, such as SOU, it is fair, reasonable, and within the Constitutional Due Process Clause to require the claimant to come forward with some evidence of its applicability, and to require the defendant to bear the burden of proof. Although the "burden of persuasion" is not often placed on defendants or respondents, particularly in criminal cases, it does not offend notions of fundamental fairness to place such a burden on defendants in this context, to prove "by a preponderance of the evidence" that SOU should apply. The information required to establish the occurrence of an SOU event is within the possession and control of the claimant. Further, the NPDES regulations already require reporting of many noncompliance incidents. To require that the Agency determine whether a single operational upset has occurred, and whether the prerequisites to its assertion have been met would be quite burdensome and would be contrary to the intent of Congress that enforcement actions should not be bogged down in administrative determinations or showing of fault. See A Legislative History of the Clean Water Act of 1977, 95th Cong., 2d Sess. (1978) at 464-5.

I. Counting Violations Where a Single Operational Upset is Involved

When an SOU results in the exceedance of multiple daily maximum pollutant parameters, only one violation will be counted for each day that the exceedance attributable to the SOU continues. Thus, an SOU that results in three days of noncompliance with one or more permit effluent parameters will be counted as three violations in determining the statutory maximum penalty.

The counting of violations becomes more complicated when, for example, a permit contains both daily maximum effluent discharge limits and monthly (or weekly) average discharge limits. The violation of a monthly average limitation is counted as one day of violation for each day in the month, e.g. 30 days of violation in a 30 day month. See Gwaltney of Smithfield v. Chesapeake Bay Foundation, 791 F.2d 304, 314-15 (4th Cir.

1986), vacated on other grounds, 484 U.S. 49 (1987). The question therefore arises about how to count the number of violations where an SOU event causes exceedance of multiple monthly averages or a combination of daily maximums and monthly averages.

In counting monthly average violations in the SOU context, EPA enforcement personnel should abide by these rules:

1) If a monthly average limitation would not have been exceeded but for the effluent limitation exceedances caused by a specific SOU event, then that monthly average violation merges with violations of any other pollutant parameter exceedances caused by the same SOU event. This rule applies to daily maximum parameter exceedances that are caused by the SOU and to each day of each monthly average parameter exceedance that would not have occurred but for the exceedances caused by the SOU event. For example, if monthly average parameters for pollutants A and B are exceeded during the same month, as a result of the same SOU event, and neither parameter would have been exceeded but for discharges resulting from that SOU event, then only one violation per day will be counted during that entire month (assuming no other violations occurred during the month). Further, if daily maximum violations are also attributable to the same SOU event, still only one violation per day is counted for each day in the month; and

2) If the monthly average pollutant parameters in the above example would have been exceeded regardless of discharges caused by an SOU event, the number of violations are counted differently because multiple monthly average exceedances do not merge, and multiple violations per day are still to be counted for purposes of calculating the statutory penalty. This is true of both daily maximum parameter exceedances and days of monthly average exceedance. For example, if monthly average parameters for pollutants A and B are exceeded during the same month, and these monthly average exceedances would have occurred regardless of any SOU event that occurred during that month, two violations will be counted for each day during that month. If daily maximum exceedances occur during that month and are attributable to the SOU event, they do not merge with the corresponding days of monthly average violation either.

For further examples of counting violations on the context of an SOU, see Appendices 1 and 2, below.

V. Single Operational Upset Versus Regulatory Upset: How the Two Concepts Differ

Because the regulatory upset defense and single operational upset are similar concepts, it is helpful to compare them and to examine the ways in which they substantively and procedurally differ. Following is a comparison of the two concepts focusing on their differences:

A. The purpose and effect of single operational upset differs from the purpose and effect of the regulatory upset defense. SOU provides that EPA, in determining the maximum penalty liability of a regulatee, is to count as one violation all those violations of multiple pollutant parameters stemming from a single operational upset. The result is that a regulatee's liability is limited to \$25,000 per day (\$10,000 per day administratively), regardless of the number of pollutant parameters violated.

Regulatory upset (as defined in EPA regulations, 40 C.F.R. § 122.41(n)) differs in that its successful assertion constitutes a complete affirmative defense (rather than a mere limitation on total liability) to noncompliance with effluent limitations.

B. Single operational upset is available as a limitation on liability for noncompliance with both technology-based and water quality-based effluent limitations. This is not true of the regulatory upset defense, which applies only to violations of technology-based effluent discharge limitations.⁵

C. Single Operational Upset need not be mentioned in an NPDES permit, either federal or state issued, for a violator to claim this limitation on liability in a federal enforcement action for penalties.⁶ The regulatory upset defense, on the

⁵ But see Natural Resources Defense Council v. EPA, 859 F.2d 156 (C.A.D.C. 1988). In this decision the circuit court has compelled EPA to conduct further proceedings to determine whether to extend the upset defense to violations of water-quality based effluent limitations. *Id.*, 210. The court explicitly states that EPA need not extend the upset defense to violations of water-quality based effluent limitations if it chooses not to do so. *Id.*, 209. While EPA is making this determination, the upset regulations, as they apply to violations of technology-based standards, remain in effect. *Id.*, 210.

⁶ In a state enforcement action, brought in accordance with a state water protection statute, an upset defense will only be available if provided for by state law, regulation, or as a NPDES permit provision. Similarly, the SOU limitation on liability does not apply to enforcement actions brought in accordance with

contrary, must be expressly included in a state issued permit to be raised as an affirmative defense in a federal enforcement action. This limitation on raising the regulatory upset defense does not apply to a holder of a federally issued permit.⁷

D. The regulatory upset defense is not available where the noncompliance is caused by operational error, improperly designed or inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation. The upset regulation also requires that the incident or event leading to the exceedances be exceptional and that the resultant noncompliance be both unintentional and temporary.

"Upset," in the context of single operational upset, picks up some of these limitations based on the common understanding of the type of event that constitutes an industrial operational upset. The event must be exceptional or unusual, and it must be unintentional and unknowing. Further, pollutant parameter exceedances caused by failure to properly design and failure to install adequate treatment facilities can not constitute an SOU. Unlike the upset defense, in the SOU context operator error may be the basis of an SOU claim. See IV.D, *infra*.

E. To assert the regulatory upset defense, a regulatee must give prior notice to EPA or the state in accordance with 40 C.F.R. §§ 122.41(n)(3)(iii) and 122.41(l)(6). A regulatee is n required to give prior notice of the SOU event in order to later assert the SOU limitation on liability.

F. Respondents and defendants may claim, in the same judicial or administrative action, both regulatory upset and single operational upset. If the upset defense is successfully claimed, single operational upset is not applicable to those violations since the respondent or defendant would be absolved of liability for the violations at issue.

state law, unless the state law contains an SOU provision. States may provide for more strict enforcement, including greater penalty liability, than is provided by federal law.

On the contrary, the federal government, even when it enforces against violations of state issued NPDES permits, must allow an SOU claim because the federal government always sues under the Clean Water Act which contains the SOU provision.

⁷ See Marathon Oil v. EPA, 564 F.2d 1253 (9th Cir. 1977); but see U.S. v. BP Oil, Inc., No. 86-0792 (E.D.Pa. July 27, 1988) (order granting government's motion for partial summary judgment) ("Absent incorporation ... of the upset defense [into either an EPA or state issued NPDES permit], the defense is unavailable to defendant").

VIII. Conclusion

Single Operational Upset operates to limit the statutory liability of Clean Water Act regulatees under a strictly defined set of circumstances. If a regulatee's usually well functioning process is somehow "upset" resulting in exceedances of multiple pollutant parameters, the statutory liability for those exceedances will be calculated as if only one pollutant parameter had been exceeded. The "upset" must be an extraordinary event, not routine or if any way usual, it must not have been an intended result of the regulatee's action or inaction, and it must not be attributable to inadequate treatment facilities or faulty design of those facilities.

The regulatee who chooses to assert SOU in order to limit his potential CWA liability has the burden of raising this claim. In so doing, the regulatee must demonstrate that he/she took timely corrective and/or mitigative measures if possible or practicable to limit the environmental effect of the SOU event.

IX. Effect of Guidance

This guidance establishes the Agency's authoritative interpretation of the Single Operational Upset provisions set forth in the Water Quality Act of 1987. It is primarily intended for the use of government personnel. It is not intended, and cannot be relied upon, to create any rights, substantive or procedural, enforceable by any party in litigation with the United States. The Agency reserves the right to change this guidance at any time without public notice.

In addition, the Agency's application of this guidance in formulating an appropriate Clean Water Act penalty, done in anticipation of litigation, is likely to be exempt from disclosure under the Freedom of Information Act. As a matter of public interest, the Agency may release this information in some cases.

X. Contact

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APPENDIX I

EXAMPLES OF THE APPLICATION OF SINGLE OPERATIONAL UPSET: CALCULATING PENALTIES

A metal finisher encounters an operational problem--a chelating agent is released to the wastewater in excess of enforceable effluent limitations. The release of the pollutants was an exceptional and unintended event and was not attributable to faulty design or inadequate treatment facilities, and the violator took timely corrective action. Consequently, the violator in this case may claim SOU to limit his liability. Because the wastewater contains significant concentrations of chelated chromium, copper, and nickel, effluent parameters for all three pollutants are violated. These violations continue for 3 days. Assume that EPA is seeking civil penalties at \$25,000 per day for each violation.

A. Daily Maximum Violations

No SOU Limitation on Liability

The above example displays 3 violations (one for each pollutant parameter violated), each violation continuing for 3 days. The statutory maximum penalty is calculated by multiplying 3 violations x 3 days x \$25,000 per day for each violation--for a total of \$225,000.

SOU Limitation on Liability

Where the SOU limitation on liability applies, the three pollutant parameter violations are counted as one violation for purposes of calculating statutory penalties. This would not impact "per day" penalties. The statutory maximum penalty in this context is therefore calculated by multiplying 1 violation (due to the single operational upset) x 3 days x \$25,000 per day for each violation--a total of \$75,000.

B. Monthly Average Violations

In addition to the daily maximum violations, monthly average violations may also be counted. Assume the exceedances attributable to the SOU also resulted in the violation of the monthly average discharge limitation for each of the three pollutants.

No SOU Limitation on Liability

Where no SOU is involved, the penalty for monthly average violations is calculated by multiplying the number of parameters violated (3) x 30 days per month x \$25,000 per day--a total of \$2,250,000. To this number is added the penalty

calculated for the daily maximum violations (\$225,000), for a grand total of \$2,475,000.

Single Operational Upset Limitation

Application of SOU to limit liability for monthly average violations turns on the question of whether the monthly average pollutant parameter would not have been violated but for the daily maximum exceedances that resulted from the SOU event. If all of the monthly average parameters would not have been violated but for the exceedances resulting from the SOU event, then only one violation is counted for each day during the month that the monthly averages were violated, e.g. 30 days x 1 violation/day x \$25,000/violation = \$750,000 penalty. The daily maximum violations that resulted from the SOU are not counted separately.

If the monthly average pollutant parameter exceedances would have occurred regardless of the SOU event, then the violations of the monthly average parameters do not merge. Rather than counting one violation per day for each day in the month for the monthly average exceedances, three violations are counted. The penalty for the daily maximum parameter exceedances, still limited by the SOU, is added to the penalty calculated for the monthly average violations. Therefore, in this example, the statutory maximum penalty equals 30 days x 3 monthly average violations/day x \$25,000/violation + 3 days x 1 daily maximum violation/day x \$25,000, for a total penalty of \$2,325,000.

C. Changes in parameters violated

Modify the example by having the "single operational upset" cause the following: one chromium violation on day 1, one chromium and one copper violation on day 2, and one nickel violation on day 3, as well as a violation of the monthly average for chromium.

No Single Operational Upset Limitation on Liability

To calculate this penalty, the penalties for daily maximum and average violations for each parameter are added together. For chromium there is 1 daily maximum violation x two days x \$25,000 per day for each violation--a total of \$50,000. In addition, for chromium there is 1 monthly average violation x 30 days x \$25,000 per day for each violation--a total of \$750,000. For copper there is 1 daily maximum violation x 1 day x \$25,000 per violation for each day--a total of \$25,000. Likewise, for nickel there is 1 daily maximum violation x 1 day x \$25,000 per violation for each day--a total of \$25,000. This results in a grand total of \$850,000.

Single Operational Upset Limitation

Again, the calculation of the penalty where an SOU is involved depends on whether the monthly average violation would not have been violated but for the exceedance attributable to the SOU event. If this violation would not have occurred but for the SOU related exceedances, all of the days of daily maximum exceedance merge with the days of monthly average exceedance, therefore the penalty is equal to 30 days x 1 violation per day x \$25,000, for a penalty of \$750,000.

If the monthly average violation would have occurred regardless of the SOU related exceedance, then the days of daily maximum exceedances do not merge with the days of monthly average exceedance. In this example, the penalty, in this instance, is computed by adding to the 30 days of monthly average violation the three daily maximum violations (the two violations on day two counted as one due to the SOU limitation) for a total penalty of $\$750,000 + \$75,000 = \$825,000$.

D. Violations not Associated With a Single Operational Upset

Assume that an SOU occurs resulting in violations as described in part A, above. In addition to the violations described above, on day 2 the cyanide treatment system fails, due to some cause other than a single operational upset, resulting in a one day violation of the cyanide limit.

In this situation, the cyanide exceedance would not merge with any other exceedance, either daily maximum or monthly average, and would be counted as an additional \$25,000 to be added to the penalty.

APPENDIX 2

More Examples of Calculating Penalties in the Context of a Single Operational Upset

Consider the following scenario: during a single month, Regulatee X, who owns and operates Facility X, and who possesses an NPDES permit regulating discharges from Facility X, experiences five separate and distinct SOU events. These events occur on days 1-2, 10, 17, 23, and 29. The SOU events cause all of the permit effluent limitation exceedances that take place during this month. All the procedural preconditions for claiming SOU have been satisfied including efforts to mitigate.

Regulatee X's NPDES permit controls discharges for two pollutants, but establishes two parameters for each pollutant, a daily maximum and a monthly average. The sampling for pollutant A is taken daily, but for pollutant B samples are taken weekly.

On day 1, SOU Event I causes two days of violation of the daily maximum effluent limitation for pollutant A, but not pollutant B. (Pollutant B was sampled on these days. The quantity of the discharge on both days was 77 lbs/day). Although Regulatee X takes all feasible mitigative steps the violation continues for two days. On each of these days the daily maximum limitation for pollutant A is violated. On day one the concentration of the discharge is 40 mg/l; on day two it is 35 mg/l. These violations are so severe that, at month's end, averaging the 30 pollutant A samples taken during the month, it is determined that the monthly average would not have been exceeded BUT FOR these two days of exceedance, caused by this SOU event.

It is also determined at month's end that the monthly average limit for pollutant B has been exceeded but, in this case, the monthly average would have been exceeded regardless of the exceedances caused by the SOU event that occurred on days one and two.

On day 10, SOU Event II causes a violation of the daily maximum effluent limitation for pollutant B (105 lbs/day). This is known because a sample was taken on this day. At month's end, it is determined that the monthly average limitation for pollutant B would not have been exceeded but for the exceedance of Pollutant B caused by this SOU event.

On day 17, SOU Event III occurs. It does not cause an exceedance of either the daily maximum or monthly average limitations for pollutant A. It is unknown whether the daily maximum or monthly average limitations for pollutant B are exceeded because no sample of Pollutant B was taken on this day.

On day 23, SOU Event IV causes violations of the daily maximum limitations for both pollutants A (5.0 mg/l) and B (115

lbs/day), both of which were sampled. At month's end it is determined that the monthly averages for both of these pollutants would not have been violated but for the exceedances caused by this SOU event.

On day 29, SOU Event V occurs. It does not cause a violation of the daily maximum effluent limitation for either pollutant A or B but the levels of the pollutants exceed the monthly average limitation. As determined at month's end, the monthly average limitation for Pollutant A would have been violated regardless of this exceedance, as a result of the exceedances caused by SOU event I. The monthly average limitation for Pollutant B was exceeded by an amount such that the average for the month would not have been violated but for this discharge.

<u>SOU Event</u>	<u>Day</u>	<u>Pollutant</u>	<u>Limit(Daily/Mthly)</u>	<u>Discharge Level</u>
I	1	A	2.0/1.5 mg/l	40 mg/l
	2	A	2.0/1.5 mg/l	35 mg/l
	1	B	100/75 lbs/day	77 lbs/day
	2	B	100/75 lbs/day	77 lbs/day
II	10	A	2.0/1.5 mg/l	1.2 mg/l
	10	B	100/75 lbs/day	105 lbs/day
III	17	A	2.0/1.5 mg/l	1.0 mg/l
	17	B	100/75 lbs/day	NOT SAM ^r
IV	23	A	2.0/1.5 mg/l	5.0 mg/l
	23	B	100/75 lbs/day	115 lbs/day
V	29	A	2.0/1.5 mg/l	1.6 mg/l
	29	B	100/75 lbs/day	98 lbs/day

Counting the Violations

SOU Event I: The only pollutant parameter violated is for Pollutant A. Therefore, there is one daily maximum violation on each of days one and two. In addition, the monthly average for Pollutant A is exceeded and would not have been exceeded but for the discharges related to SOU event I. In this case, for Pollutant A, the monthly average violation on days one and two merge with the daily maximum violation on those two days. The total number of days of violation of Pollutant A, for both the daily maximum and monthly average violations, is 30.

The daily maximum limitation for Pollutant B is NOT violated on either day that SOU Event I is ongoing. Further, the monthly

average violation for Pollutant B would have been violated regardless of the violations attributable to SOU Event I. Consequently, these days of monthly average violation do not merge with the days of violation of Pollutant A.

SOU Event II: The daily maximum and monthly average parameters for Pollutant B are violated as a result of this SOU event. The monthly average parameter for Pollutant B would not have been violated BUT FOR the exceedance caused by SOU Event II. Therefore, the daily maximum violation on day 10 (the date of SOU Event II) and the day of monthly average violation for this date merge, leaving a grand total of 30 days of violation attributable to SOU event II. These days of monthly average violation do not merge with the days of monthly average violation of Pollutant A, caused by SOU Event I, because the exceedances were caused by different SOU events.

SOU Event III: The only issue presented by SOU Event III is what effect, if any, does an SOU event whose consequences are unknown, have on the determination of which pollutant parameter exceedances merge. The answer is that without sampling data, a regulatee will not be able to limit its liability based on the occurrence of an SOU event.

SOU Event IV: The daily maximum and monthly average parameters for both Pollutants A and B are exceeded. Both monthly averages would not have been exceeded but for this SOU Event. As a result, all of these violations merge, for a total of 30 days of violation attributable to this SOU event. (Of course, the greatest number of days of monthly average violation that may occur in a given month is equal to the number of days in the month. Therefore, as is the case here, because the monthly average was already determined to have been violated for both pollutants, no additional days of monthly average violation actually accrue, although one more day of daily average violation is tallied for this month.

SOU Event V: The discharges caused by SOU Event V result in exceedance of the monthly average parameters for Pollutants A and B. As determined at month's end, the monthly average parameter for Pollutant A would have been violated regardless of the exceedance caused by this SOU event. The monthly average parameter for Pollutant B would not have been violated BUT FOR the exceedance caused by SOU Event V. Consequently, no days of violation for pollutant A and B merge as a result of SOU Event V.

APPENDIX 3

COMPARISON OF THE SINGLE OPERATIONAL UPSET LIMITATION
ON LIABILITY AND THE REGULATORY UPSET DEFENSE

SINGLE OPERATIONAL UPSET
DEFENSE

REGULATORY UPSET

EFFECT: In calculation of penalty liability, certain violations are counted as one violation.

EFFECT: Certain exceedances not considered to be violations.

Available by statute, no permit provision necessary in either state or federally issued permit.

Must be present as provision in state issued permit.

Available where violations are of either water quality or technology-based effluent limitations.

Available only where are of technology-based effluent limitations.

Proper pollution controls must be in place (including proper design and adequate treatment).

Same.

Available where permit limitations are based on water quality standards.

Not available where permit limitations are based on water quality standards.

Prior notice not an explicit requirement of proof.

Prior notice is explicitly required.

Incident must be exceptional and unintentional (unknowing), but not necessarily unavoidable.

Incident must be exceptional, unintentional, and unavoidable.

Condition must be temporary (i.e. necessity to take timely corrective and/or mitigative measures where possible or practical).

Same.

Lack of preventative maintenance may not be the basis for a claim of SOU.

Same.

Unless "knowing" or "intentional", contributing operator error and careless or improper operation may be the cause of a single operational upset.

Contributing operator error, and careless or improper operation may not be a cause of a single operational upset.